

Dust may seem like a fairly mild problem compared to other air pollutants. But if you live in certain areas of eastern Washington, you probably know how serious the problem of windblown dust in the air can be. From spring through fall, high winds in the Columbia Plateau region can combine with dry weather conditions and unprotected fields to result in dust storms. These dust storms can lead to extremely high levels of particulate matter air pollution.

Dust storms have occurred in eastern Washington for many years. Lewis and Clark experienced them during their expedition in the early 1800s. Windblown dust storms can be either local events or large, regional events that affect the entire Columbia River Plateau. Of course, larger numbers of people are exposed in higher population areas such as Spokane and the TriCities.

Windblown dust can be neither completely controlled nor avoided. The purpose of this brochure is to help you understand the problem of windblown dust and minimize your exposure to the small particulate matter it contains.



For more information

For more information about windblown dust, contact your local air quality agency:

- ⊙ *Benton Clean Air Authority*
(509) 943-3396
Email: email@bcaa.net
- ⊙ *Yakima Regional Clean Air Authority*
(509) 834-2060 or 1-800-540-6950
Email: info@yrcaa.org
- ⊙ *Spokane County Air Pollution Control Authority*
(509)477-4727
Email: publicinfo@scapca.org
- ⊙ *Department of Ecology
Eastern Regional Office*
(509) 329-3400
(Adams, Asotin, Columbia, Ferry,
Franklin, Garfield, Grant, Lincoln, Pend
Orielle, Stevens, Walla Walla, and
Whitman counties)

If you need this information in an alternate format, please contact Tami Dahlgren at (360) 407-6800. If you are a person with a speech or hearing impairment, call 711, or 1-800-833-6388 for TTY.

Windblown Dust



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Why is windblown dust a concern?

During the 1990s, numerous, intense dust storms occurred, caused by several years of drought conditions. These storms led to increased concern over windblown dust on the Columbia River Plateau. Also during this time, health studies more firmly established the health effects from small particulate matter. In response, state and local agencies, along with the agricultural community, have been working cooperatively to minimize dust from agricultural activity.

How can breathing dust hurt me?

The smallest dust particles are too small to be filtered out by your nose and your body's other natural defense systems. They can be breathed deep into your lungs, where they lodge and cause structural and chemical changes. These particles can also act as carriers for other toxic and cancer-causing materials. Exposure to particulate matter has been associated with emphysema, asthma, chronic bronchitis, cancer, heart disease, and even death.



Some farming practices help protect soil from eroding and becoming windblown dust. Examples are planting cover crops, leaving some plant residue in the field, and planting strips of alternating crops.

How concerned about my health should I be?

Anyone exposed to particulate matter can suffer health effects. However, the people most likely to experience health problems are young children the elderly, and people with pre-existing respiratory diseases (for example, asthma or bronchitis).

High levels of particulate matter can be most dangerous to health when people are exposed for long periods of time. Since many population centers in eastern Washington (for example, Spokane, Pullman, and Colfax) are located in natural valleys or "bowls," air pollution can become trapped there for extended periods. So when a storm blows dust into these areas, the particles can remain in the air for quite a while, depending on weather conditions. This makes health effects an even greater concern. Studies on the health effects of particulate matter continue to be a high priority in eastern Washington. A recent study done in Spokane found that particulate matter composed mostly of dust could not be associated with excess deaths. However, this study addressed only deaths, and not the health effects from dust.

What should I do if there is a dust storm?

- ⊙ Stay indoors as much as you can. This will not completely eliminate your exposure to particulate matter, but it will lessen it.
- ⊙ If dust bothers you and you must go outside, it may help to wear a mask specially designed for small particulate matter. Check with your doctor about whether you should wear one of these masks, and where to get them.
- ⊙ If you are driving during a dust storm, be alert for sudden changes in visibility along your route. If possible, avoid driving during windy conditions that generally create windblown dust on roadways.
- ⊙ You may be able to avoid exposure to dust, or lessen it, by temporarily detouring to a nearby area where the dust is less intense.
- ⊙ When possible, try to anticipate upcoming windblown dust conditions and take actions appropriate to your situation and area. If windblown dust affects your health, seek medical advice in advance when a dust storm is expected.